



# User Manual

**DVB-C HD Cable Receiver**

*Model Number: C-1720AC*

---

# CONTENT

I.	SAFETY PRECAUTIONS .....	3
II.	ENVIRONMENT PROTECTION .....	5
III.	GENERAL INFORMATION .....	6
1	PREFACE .....	6
2	BEFORE INSTALLATION .....	6
2.1	<i>Hardware</i> .....	7
2.1.1	Front Panel .....	7
2.1.2	Back Panel .....	7
2.1.3	Remote Control Unit .....	8
3	STB INSTALLATION .....	10
4	MAIN MENU .....	11
4.1	<i>System tools</i> .....	12
4.1.1	Service List Manager .....	12
4.1.2	Files Manager .....	12
4.1.3	Record list .....	13
4.2	<i>Configuration</i> .....	14
4.2.1	Parental Control .....	14
4.2.2	Display Setting .....	14
4.2.3	Language Settings .....	15
4.2.4	Time Settings .....	15
4.2.5	A/V Settings .....	16
4.3	<i>Installation</i> .....	16
4.3.1	“Auto” search .....	17
4.3.2	“Fast” search .....	17
4.3.3	Manual search .....	18
4.3.4	Search setting .....	18
4.4	<i>CA System</i> .....	19
4.4.1	About AVIT CA .....	19

4.4.2	CA Status.....	20
4.4.3	Factory Setting .....	20
5	SHORTCUT .....	21
5.1	<i>AUDLO: Audio language optional.....</i>	21
5.2	<i>TEXT.....</i>	22
5.3	<i>INFO (Information).....</i>	22
5.4	<i>EXIT: Exit section.....</i>	23
5.5	<i>List.....</i>	23
5.6	<i>DELETE: Delete program.....</i>	23
5.7	<i>BACK: Back to last page.....</i>	23
5.8	<i>MENU: To enter into main menu.....</i>	23
6	ELECTRONIC PROGRAM GUIDE (EPG) : .....	23
7	VOLUMES .....	24
8	RECORDINGS .....	25
9	ACCESSORIES.....	26
<b>IV.</b>	<b>TROUBLE SHOOTING.....</b>	<b>27</b>
<b>V.</b>	<b>SPECIFICATIONS .....</b>	<b>29</b>

# I. SAFETY PRECAUTIONS

## CAUTION:



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to "dangerous voltage" and to prevent from a risk of electric shock.



### Warning:

To reduce the risk of electric shock, don't open the cabinet. Refer servicing to qualified personnel only.



The exclamation point within an equilateral triangle is intended to alert the user to important operating and maintenance (servicing).

**WARNING:** Do not use this STB where contact with or immersion in water is a possibility. Do not use near flower vase, washbowls, kitchen sinks, laundry tubs, swimming pools, etc.

**WARNING:** Do not put the candle or lamp stand on the cabinet; otherwise, there is the danger of fire.

**WARNING:** The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the unit. If you are not sure of the type of power supply (for example, 120 or 230 V) to your home, consult your local dealer or local power company.

**WARNING:** This product install diodes. Do not open the cabinet or touch any parts in the inner mechanism. Consult your local dealer for technical service if the opening is required.

**WARNING:** If use the power supply plugs and appliance couplers as a disconnect device, disconnect device shall be easy to operate.

**Note:** This product install diodes. Do not open the cabinet to avoid the unit direct exposure to radiation.

**Unit Cleaning:** After the unit power is turned off, you can clean the cabinet, panel and remote control with a soft cloth lightly moistened with a mild detergent solution.

**Attachments:** Never add any attachments and/or equipment without the manufacturer consent; as such additions may result in the risk of fire, electric shock, or other personal injury.

**Locating:** Slots and openings in the cabinet are provided for ventilation to protect it from overheating. Do not block these openings or allow them to be blocked by placing the STB on a bed, sofa, or other similar surface, nor should it be placed over a radiator or heat register.

**Power-Cord Protection:** Place the power-supply cord out of the way, where it will not be walked on. Please take special attentions to cords at plugs, convenience receptacles, and the point where they exit from the unit.

**Object and Liquid Entry:** Never put objects of any kind into this STB through openings, as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill any liquid on the STB.

**Note:** Moisture may be formed on the lens In the following conditions:

- when the unit is suddenly moved from a cold environment or an air-condition room to a warm place.
- immediately after a heater has been turned on.
- in a steamy or very humid room.

If the moisture forms inside the unit, it may not operate properly. To correct this problem, turn on the power and wait about two hours for the moisture to evaporate.

**Parts Replacement:** When the unit parts need to be replaced, user should make sure the service technician use the replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized replacement may put the unit In the risk of fire, electric shock or other hazards.

**Safety Check:** After all the maintenances and repairs are done, user is required to request the service technician to conduct the overall safety check to ensure the machine is In the proper condition.

## II. ENVIRONMENT PROTECTION



### **Attention!**

Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a separate collection system for these products.

### **Information on Disposal for Users (private households) in the European Union**

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge\*. In some countries\* your local retailer may also take back your old product free of charge if you purchase a similar new one. \*) Please contact your local authority for further details.

If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

### **Information on Disposal for Business Users**

#### ***In the European Union***

If the product is used for business purposes and you want to discard it:

Please contact your dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities,

#### ***In other Countries outside the EU***

If you wish to discard of this product, please contact your local authorities and ask for the correct method of disposal.

# **III. GENERAL INFORMATION**

## **1 Preface**

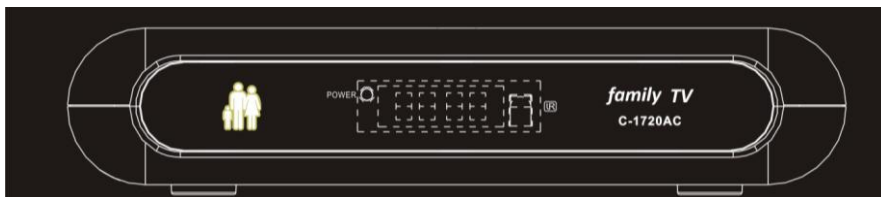
Thanks for your purchase digital cable receiver. The latest technology and the outstanding design are adopted to provide high reliability and picture stability, for your convenient operation, strongly advised reading the manual before using.

1. Conditional Accessing System supported.
2. Adopt the powerful chip MSTAR. CPU Speed: 600MHz
3. MPEG-4 AVC high profile level 4.1/MPEG-2 MP@ML
4. DDRAM Memory 128Mbytes
5. Flash 4Mbytes
6. HDMI 1.3 Output
7. USB 2.0 Interface (for browse PIC and Upgrade SW)
7. Fully DVB-C compliant
8. 2000 channels TV and radio programs
9. Fully support 7 days of electronic program guide (EPG)
10. OSD teletext (DVB compliant) and subtitle function supported
11. Automatic turn on/off by timer setting
12. Multi-language supported (English, French, German, and Italian Spanish, Portuguese, Dutch, 13 kinds of Languages.)

## **2 Before installation**

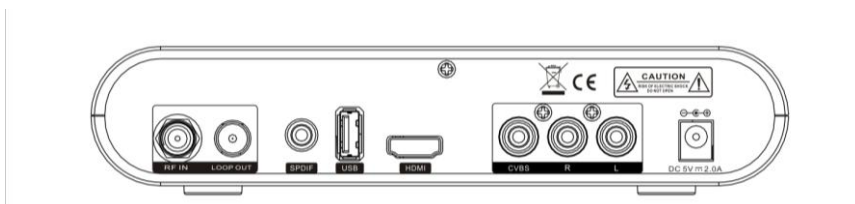
## 2.1 Hardware

### 2.1.1 Front Panel



1. Power

### 2.1.2 Back Panel




1. RF IN: Connect to coaxial cable
2. LOOP OUT: To connect a TV set to receive analogue channels or to connect an extra receiver
3. SPDIF: To connect your receiver to the audio system using an S/PDIF cable
4. USB: Physical interface for updating and connect external hard-disk
5. HDMI: To connect to the TV using HDMI cable
6. CVBS: To connect to the TV using A/V cable for video output
7. Audio-L: To connect to the TV using A/V cable for audio output
8. Audio-R: To connect to the TV using A/V cable for audio output
9. DC: DC 5V power



### 2.1.3 Remote Control Unit



1. **POWER:** Power ON/OFF
2. **L/R:** sound track selection
3. **MUTE:** Mute selection
4.  : ON/OFF timer
5. **0-9:** Channel and numerical value selection
6. **EPG:** Show Electronic Program Guide
7. **INFO:** Program Info
8. **MENU :** Enter into main menu
9. **RECALL:** Switch between current and last channels
10. **EXIT:** Exit current selection
11. **OK:** Confirm the selection or show the channel list
12. **+Volume -:** Volume down or up
13. **PAGE+/PAGE-:** Page down or up
14. **SUBT:**Subtitle ON/OFF
15. **AUDIO:** Audio language Selection
16. **TEXT :**Show Teletext
17. **FAV:** Display Favorite list
18. **DELETE:** Delete program
19. **TV/RADIO:** Change the mode between TV and RADIO
20. **LIST:** List out
21. **ASPECT:** Aspect
22. **REC:** Recording the current programme
23. **PLAY:**Playback the recorded files from external USB device
24. **REW:**Rewind during playback
25. **FF:**Fast-forward during playback
26. **STOP:**Stop recording or playback
27. **PAUSE:**Pause playback
28. **SLOW:** Slow down the playback
29. **REC LIST:** Go to the recording list directly
30. **RED/GREEN/YELLOW/BLUE buttons:** Used for TEXT

### 3 STB Installation

#### **Step 1:**

System connection examining

Please refer to the receiver back panel diagram, examine the signal cable, a/v equipment, hard disk and power supply well connected or not. If you already have a CA card, please put the CA card with up-face into the CA card socket.

#### **Step 2:**

Switch on the power of the PWR

After well connected all the cable, power on the STB. Then power indicator light (red light) turns red, power on the TV, and switch the TV to Video mode, if STB pre-exist programs, there will be Channels No. and Signal Quality banners on the TV screen.

#### **Step 3:**

All Channel Search

In case of without pre-exist programs, there will be only open screen picture on the screen. Use the "Left" or "Right" cursor button to select "Yes" on the Search Guide Menu, press OK start program searching.

User can find detailed searching information: during the procedure of program searching. When searching finished, there will be indicate on the screen how many programs you get totally.

#### **Step 4:**

The selection of TV, Radio or Recording program

Use "UP" and "DOWN" to select your favorite program

In case of want to listen to the radio, switch the TV/Radio when Non-Menu Mode.

In case of want to record the program, press "record" for showing recording program.

## 4 Main Menu

If you want a further set to STB, on the mode of Non-Main Menu, press the shortcut Key “**MENU**” on the Remote Control Unit, to enter the main menu, there are four Menus included:



- ✧ **4.1 System Tools:** the menu of system tools
- ✧ **4.2 Configuration:** the menu of configuration
- ✧ **4.3 Installation:** the menu of installation
- ✧ **4.4 Utilities :** the menu of utilities

Please press “Left” and “Right” to select the model as you prefer. Press OK, then you can enjoy all the menu operation freely

## 4.1 System tools

### 4.1.1 Service List Manager

Select **“Service list manager”** when System tools, press **“OK”** to confirm. Use **“UP”** and **“DOWN”** to highlight the programs and press to **“OK”** to switch between your favorite list and channel list. You would press the color button to easily manage your channels.

Color buttons function:

Green: Add Fav

Blue: Lock

Yellow: Move

TV/Radio: Parental Lock/Unlock

Choose: choose any program you like

Change: change any program you dislike

Type:



### 4.1.2 Files Manager

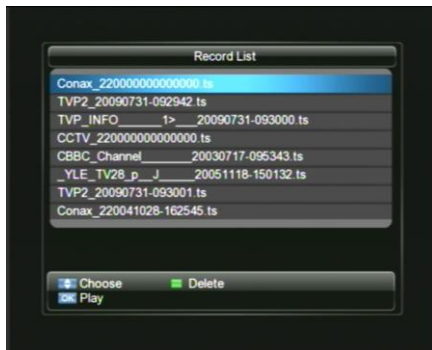
Select **“File Manager”** when system tools, press **“OK”** to enter into **Files**

**Manager.** Currently, file manager is for USB file browse and software upgrade, and multi- function will be added in the future



### 4.1.3 Record list

Select “Record list” and press OK button to enter into record list. This menu will show the USB device file system, full capacity, free capacity .You can playback and edit the recoded files from this menu as well.



UP/DWON: to select the recorded files by pressing UP/DOWN button.

Green button: to delete the selected file

Yellow button: To delete all the recorded files

OK button: to playback the selected file

Red button: to format the USB device into FAT32 only.

## 4.2 Configuration

### 4.2.1 Parental Control

Select “**Parental Control**”, press “**OK**” to enter into **Parental Control**.



### 4.2.2 Display Setting

Select “**Display setting**”, press “**OK**” to enter into **Display setting**.



## 4.2.3 Language Settings

Select **“Language Settings”**, and press **“OK”** to enter into **Language System Menu**. Then use **“LEFT”** and **“RIGHT”** to set each item under the submenu **“Menu language”**, **“Audio language”**, **“Subtitle language”** as you prefer.



**Attention:** Audio Language and Subtitle should be supported by local authority.

## 4.2.4 Time Settings

Select **“Time Settings”** when **Configuration**, and press **“OK”** to enter into time setting. According to your time zone, you would set GMT at your local setting. Press **“LEFT”** and **“RIGHT”** to select the automatic turn on/off. For example, set **“Enable”** to mean the function is on, and then you can type the time as your need.

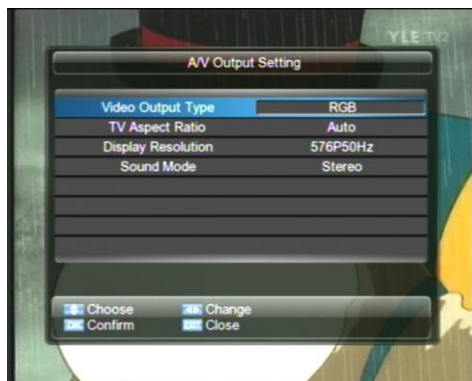




**Attention:** the time setting absolute number is 0-23 for hours and 0-59 for minutes.

## 4.2.5 A/V Settings

Select **“A/V Setting”** when **Configuration**, Press **“OK”** to confirm. You would change the factors on Audio/Video as your perform.



## 4.3 Installation

There are three search ways include automatic search, fast search and manual search.

### 4.3.1 “Auto” search

The searching will spend long time to find all channels exist in reality. Press “OK” to stop automatic search.



### 4.3.2 “Fast” search

According to your choice on digital frequency, you will search the channels exist in reality. Because of that, the time would be saved and the searching speed increase. Press “EXIT” to stop network search.



### 4.3.3 Manual search

Only store current searched channel, then add the programs to your channel list



### 4.3.4 Search setting

Select **“Search Settings”** when **Installation**, press **“OK”** to enter.

We had prepared all channel information for your convenience like “Channel

No”, Frequency, “Bandwidth”, “Ant Power”, “Save Type” and “Search Type”. You only need highlight “**Search**”, and then press “**OK**”, STB will be automatically searching. After finishing searching, the screen will show how many programs are searched out depends on what type you choosed.



**Attention : Antenna Power** , Using the **UP/DOWN** buttons select **ANT Power** and press the **LIFT/RIGHT** keys select **ON** to provide 5V power supply to the antenna and select **OFF** to turn off the 5V power supply to the antenna. Please note that the antenna must support this feature, otherwise, please turn off the 5V power supply feature.

## 4.4 CA System

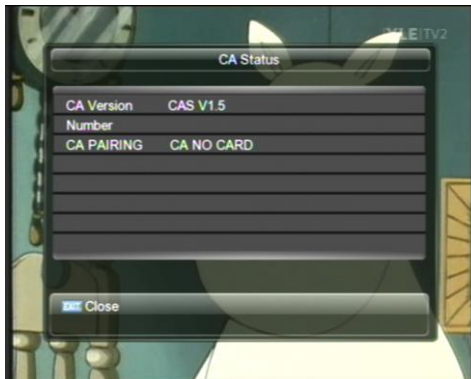
### 4.4.1 About AVIT CA

When entering into CA system, select “CA information” and you will catch relevant information about CA, such as serial number, revision, etc.



### 4.4.2 CA Status

Select “**CA Status**”, press “**OK**” to enter into Subscription Status.



### 4.4.3 Factory Setting

Select **Factory Setting** when you press the “CAS”. Press “**OK**” to enter factory setting. Then press “**UP**” and “**Down**” to either “**System Information**” or “**Load Default**”, “**OTA Settings**”, “**Modify PIN**”, in order to achieve that,

just press “OK” to confirm.

3.4.2.1 System Information

3.4.2.2 Reset Service Data

3.4.2.3 System restore to factory default

3.4.2.4 Reset Configuration Data



## 5 Shortcut

### 5.1 AUDLO: Audio language optional



## 5.2 TEXT

Teletext page! Press the “TEXT” on the RCU to opens the Teletext function.



## 5.3 INFO (Information)

When entering into Non-Menu mode, and press “INFO”, the current channel's information will be shown on the screen. Including Channel No, Channel Name, Signal Quality and so on..



## 5.4 EXIT: Exit section.

## 5.5 List

Press “**List**” on **RCU**, and use “Left” and ‘Right” to switch between **TV/RADIO/FAV** , and use “**UP**” and “**Down**” to select channels, finally press “**OK**” to confirm.



## 5.6 DELETE: Delete program.

## 5.7 BACK: Back to last page.

## 5.8 MENU: To enter into main menu.

# 6 Electronic Program Guide (EPG) :

Select “GUIDE” on RCU, and then press **OK** enter **EPG** Menu.



The following information can be found from the **EPG**.

- ✧ To display the program info you are watching.
- ✧ To view the weekly TV forecast and reserves your favorite program.

Use “**UP**” and “**DOWN**” select program and “**LEFT**” and “**RIGHT**” view the TV forecast.



Please press “**INFO**” to show the EPG.



## 7 Volumes

Audio Volume can be adjusted using either the RCU or the STB front panel keys, for TV or Radio services. A handy Audio MUTE function is also

available on the RCU.



## 8 Recordings

This box has (Personal Video Recorder) recording function. NOTE! Recording requires that a USD storage device is connected formatted in FAT32 only.

Press REC button on the remote to directly start a recording. The recording will start after a few seconds after REC has been pressed. A REC icon will be displayed in the top left corner of the screen while recording.

The recording will continue till STOP is pressed or the USB device is full.



## 9 Accessories

Following items are included in the packaging:

- 1 unit Receiver
- 1 pc Remote Control Unit
- 2 pcs (AAA) Batteries
- 1 pc A/V cable
- 1 pc User Manual

## IV. TROUBLE SHOOTING

Problem	Possible cause	What to do
The display on the front panel does not light up	Main cable is not connected	Check that the main cable is plugged into power socket.
Bad Picture/ Blocking error	Signal is too strong	Try a signal attenuator to the RF In port
No picture or sound	Poor signal quality or bad interconnections	Check the antenna system Check cable connections.
No sound and picture, but the front panel shows time	The unit is in standby mode	Press the key on the RCU
The RCU is not working	batteries exhausted	Replace batteries
The remote control will not operate your STB	(1) The batteries in your remote control need replacing (2) There is an obstruction blocking the signal path between the remote control and the box.	(1) Replace the batteries (2) Check that there is nothing in the way of the path between the remote control and the receivers
The recording function is not working at all	The hard disk problem The connection problem The signal problem	Check the connected cable Require the resell to check and solve this problem.

Note: if you cannot solve the problem by referring to the above trouble shooting, please contact your re-seller.

## V. SPECIFICATIONS

<b>TUNER</b>	
Input Frequency Range	51~858MHz
Input Signal Level Range	-73 to -2dBm
Input Impedance	75Ω
Demodulation	QAM16~QAM256
SymbolRate	1~7Mbps
Standard	ISO/IEC 13818-1
<b>VIDEO DECODING</b>	
Transport stream	ISO/IEC 13818-2
Profile Level	H.264/AVC,MPEG-2          MP@HL,MPEG-4 SP@ASP,VC-1, RealMedia
Aspect Ratio	4:3, 16:9 Letter box Full screen, Center screen
Video Synchronization Scope	300mVp-p
Video Resolution	1080i/1080p,720p,576i
<b>AUDIO DECODING</b>	
Standard	ISO/IEC 13818-3
Audio Decoding	MPEG-1 layer I/II, MPEG-2 layer II,MP3 MPEG-4 AAC/AAC+ ,AC-3,E-AC-3,WMA
Audio Mode	Single/Dual mono/Stereo
Sample Frequency	16/22.05/24/32/44.1/48 kHz
Audio Output Level	0-6 dBu
Volume Level	32 Levels

<b>PROCESSOR AND MEMORY</b>	
CPU	MSD7C51K
Processor Speed	600MHz
DDRAM Memory	128Mbytes
FLASH Memory	4Mbytes SPI flash
<b>REAR PANEL</b>	
HDMI/ HDCP	1.3
USB Interface	USB 2.0 ×1
RF Input Connector	F type
AV Output	CVBS×1, A-L×1, A-R×1
S/PDIF Digital Audio Output	1*Coaxial
IR Receiver	38KHz
Socket	CA Insertion Socket
<b>POWER</b>	
Input voltage	DC 5V/2A
Power consumption	8W max, standby<1W
<b>AMBIENT</b>	
Operation temperature	0-40℃

Caution : Do not use this STB where contact with or immersion in water is a possibility. Equipment should not be placed on objects, such as vases, which filled with liquids.

If use the power supply plugs and appliance couplers as a disconnect device, disconnect device shall be easy to operate.

The batteries shall not be exposed to excessive heat such as sunshine, fire or the like.